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09/895,047	06/29/2001	Santosh S. Chandrachood	CISCO-4306	9309

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07/03/2007

EXAMINER

BATURAY, ALICIA

ART UNIT	PAPER NUMBER
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2155

MAIL DATE	DELIVERY MODE
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07/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/895,047

Applicant(s)

CHANDRACHOOD, SANTOSH S.

Examiner

Alicia Baturay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 74,75,77-80,82,83,85-88,90,91,93-96,98,99,101-104 and 106-109 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 74,75,77-80,82,83,85-88,90,91,93-96,98,99,101-104 and 106-109 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to a request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), which was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 March 2007 has been entered.
2. Claims 74, 80, 82, 88, 90, 96, 98 and 104 were amended.
3. Claims 1-73, 76, 81, 84, 89, 92, 97, 100 and 105 were cancelled.
4. Claims 74, 75, 77-80, 82, 83, 85-88, 90, 91, 93-96, 98, 99, 101-104 and 106-109 are pending in this Office Action.

Response to Amendment

5. Applicant's amendments and arguments with respect to claims 74, 75, 77-80, 82, 83, 85-88, 90, 91, 93-96, 98, 99, 101-104 and 106-109 filed on 27 March 2007 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 74, 75, 79, 82, 83, 87, 90, 91, 95, 98, 99 and 103 are rejected under 35 U.S.C. § 103(a) as being unpatentable by Chen et al. (U.S. 6,076,107) in view of Williams (U.S. 6,151,630) and further in view of Schrobenuhauzer et al. (U.S. 2001/0047456).

Chen teaches the invention substantially as claimed including a method of data retrieval that reduces the number of message flows in a Simple Network Management Protocol (SNMP) device (see Abstract).

8. With respect to claim 74, Chen teaches a method of predictively responding to a network management data request, the method comprising: receiving a first network management data request (Chen, col. 6, lines 50-54); sending a response including the data responsive to the first network management data request, if the data responsive to the first network management data request is contained in the cache (Chen, col. 7, lines 1-7).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the first data request matches a pattern of request defined in a memory (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29), the pattern including one or more expected data requests (the

author of pages 107 define[s] a sequence of pages – see Williams, col. 3, lines 26-27); and determining if data responsive to the first data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the first data request matches a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39); and collecting, if the first network management data request matches a pattern defined in the memory, data responsive to any remaining network data requests in the matched pattern (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach a pattern of request defined and stored in advance in a memory.

However, Schrobenuhauzer teaches determining if the first data request matches a pattern of request defined and stored in advance in a memory (Schrobenuhauzer, page 5, paragraph 112).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Schrobenuhauzer in order to enable a pattern of request defined and stored in advance in a memory. One would be motivated to do so in order to eliminate waiting time for the response.

9. With respect to claim 75, Chen teaches the invention described in claim 74, including the method further comprising:

Transmitting the first network management data request to a network management data core to respond to the first network management data request if the first network management data request does not match a pattern defined in the memory (Chen, col. 3, lines 32-46).

10. With respect to claim 79, Chen teaches the invention described in claim 74, including the method where the network management data request is a Simple Network Management Protocol (SNMP) request (Chen, col. 5, lines 3-7).

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11. Claims 82, 83, 87, 90, 91, 95, 98, 99 and 103 do not teach or define any new limitations above claims 74, 75 and 79 and therefore are rejected for similar reasons.

12. Claims 77, 78, 80, 85, 86, 88, 93, 94, 96, 101, 102, 104 and 106-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Williams in view of Schrobenuhauzer and further in view of Case et al. ("Request for Comments: 1157").

13. With respect to claim 77, Chen teaches the invention described in claim 74, including a method of predictively responding to a network management data request, the method comprising: receiving a first network management data request (Chen, col. 6, lines 50-54); sending a response including the data responsive to the first network management data request, if the data responsive to the first network management data request is contained in the cache (Chen, col. 7, lines 1-7).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the first data request matches a pattern of request defined in a memory (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29), the pattern including one or more expected data requests (the

author of pages 107 define[s] a sequence of pages – see Williams, col. 3, lines 26-27); and determining if data responsive to the first data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the first data request matches a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39); and collecting, if the first network management data request matches a pattern defined in the memory, data responsive to any remaining network data requests in the matched pattern (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach a pattern of request defined and stored in advance in a memory.

However, Schrobenhauzer teaches determining if the first data request matches a pattern of request defined and stored in advance in a memory (Schrobenhauzer, page 5, paragraph 112).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Schrobenhauzer in order to enable a pattern of request defined and stored in advance in a memory. One would be motivated to do so in order to eliminate waiting time for the response.

The combination of Chen, Williams and Schrobenhauzer does not explicitly teach what the pattern comprises of.

However, Case teaches where the pattern further comprises a periodicity of the network management data requests contained in the pattern (Case, page 6, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen, Williams and Schrobenhauzer in view of Case in order to use a specific type of pattern. One would be motivated to do so in order to minimize the amount of traffic generated by the network management function.

14. With respect to claim 78, Chen teaches the invention described in claim 106, including a method of predictively responding to a network management data request, the method comprising: sending a response including data responsive to the prefetched network management data request if the data responsive to the network management data request is

contained in the cache of prefetched network management data (Chen, col. 7, lines 1-7); and initiating periodic data collections for data relating to the pattern if the data responsive to the network management data request is not contained in the cache of prefetched network management data (Chen, col. 7, lines 8-12).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the data request contains a pattern (one record exists for each page that is included in a sequence – see Williams, Fig. 1, elements 108 and 109; col. 3, lines 1-3) defined in a memory and determining if data responsive to the data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the data request contains a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach a pattern of request defined and stored in advance in a memory.

However, Schrobenhauzer teaches determining if the first data request matches a pattern of request defined and stored in advance in a memory (Schrobenhauzer, page 5, paragraph 112).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Schrobenhauzer in order to enable a pattern of request defined and stored in advance in a memory. One would be motivated to do so in order to eliminate waiting time for the response.

The combination of Chen, Williams and Schrobenhauzer does not explicitly teach what the initiating periodic data collections comprise of.

However, Case teaches where the initiating includes initiating periodic data collections at a rate matching a periodicity of the network management data requests containing the pattern (Case, page 6, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen, Williams and Schrobenhauzer in view of Case in order to use a specific type of pattern. One would be motivated to do so in order to minimize the amount of traffic generated by the network management function.

15. With respect to claim 80, Chen teaches the invention described in claim 74, including a method of predictively responding to a network management data request, the method comprising: sending a response including data responsive to the prefetched network

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management data request if the data responsive to the network management data request is contained in the cache of prefetched network management data (Chen, col. 7, lines 1-7); and initiating periodic data collections for data relating to the pattern if the data responsive to the network management data request is not contained in the cache of prefetched network management data (Chen, col. 7, lines 8-12).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the data request contains a pattern (one record exists for each page that is included in a sequence – see Williams, Fig. 1, elements 108 and 109; col. 3, lines 1-3) defined in a memory and determining if data responsive to the data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the data request contains a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request

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contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach a pattern of request defined and stored in advance in a memory.

However, Schrobenhauzer teaches determining if the first data request matches a pattern of request defined and stored in advance in a memory (Schrobenhauzer, page 5, paragraph 112).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Schrobenhauzer in order to enable a pattern of request defined and stored in advance in a memory. One would be motivated to do so in order to eliminate waiting time for the response.

The combination of Chen, Williams and Schrobenhauzer does not explicitly teach what the pattern comprises of.

However, Case teaches where the determining if a first network management request matches a pattern of request based on at least one of: a community string; a network management system IP address; or a network management system port number (Case, page 13, last paragraph – page 14, first paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen, Williams and Schrobenhauzer in view of Case in order to use a specific type of pattern. One would be motivated to do so in order to minimize the amount of traffic generated by the network management function.

16. With respect to claim 106, Chen teaches the invention described in claim 74, including a method of predictively responding to a network management data request, the method comprising: receiving a first network management data request (Chen, col. 6, lines 50-54); sending a response including the data responsive to the first network management data request, if the data responsive to the first network management data request is contained in the cache (Chen, col. 7, lines 1-7).

Chen does not explicitly teach determining if a request contains a defined pattern.

However, Williams teaches determining if the first data request matches a pattern of request defined in a memory (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29), the pattern including one or more expected data requests (the author of pages 107 define[s] a sequence of pages – see Williams, col. 3, lines 26-27); and determining if data responsive to the first data request (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39) is contained in a cache of prefetched data (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30) if the first data

request matches a pattern defined in the memory (a user requests a page by specifying a URL...Receipt of such a request at server invokes...processor [to] check[s] whether a record that corresponds to the received URL exists – see Williams, col. 4, lines 34-39); and collecting, if the first network management data request matches a pattern defined in the memory, data responsive to any remaining network data requests in the matched pattern (when a user first accesses server (i.e., server receives a request for a page from a new user)...processor initializes the allocated memory for variables associated with this session...this involves making and loading a copy of records of all pages...of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests – see Williams, col. 4, line 11-29) and the method further comprising: if the first network management data request matches a pattern defined in the memory, but data responsive to the first network management data request is not contained in the cache (loading a copy of records of all pages of all sequences that are stored in server into allocated memory. This copy and not the originals will be used by processor to service the user's page-access requests. Optionally, processor may also place the corresponding pages in a cache memory – see Williams, col. 4, lines 20-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen in view of Williams in order to enable determining if a request contains a defined pattern. One would be motivated to do so in order to enable loading a copy of a set of data into a cache memory to service a user's requests.

The combination of Chen and Williams does not explicitly teach a pattern of request defined and stored in advance in a memory.

However, Schrobenuzer teaches determining if the first data request matches a pattern of request defined and stored in advance in a memory (Schrobenuzer, page 5, paragraph 112).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen and Williams in view of Schrobenuzer in order to enable a pattern of request defined and stored in advance in a memory. One would be motivated to do so in order to eliminate waiting time for the response.

The combination of Chen, Williams and Schrobenuzer does not explicitly teach what the initiating periodic data collections comprise of.

However, Case teaches initiating periodic data collections for data responsive to network management data requests in the pattern (Case, page 6, lines 7-11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chen, Williams and Schrobenuzer in view of Case in order to use a specific type of pattern. One would be motivated to do so in order to minimize the amount of traffic generated by the network management function.

17. Claims 85, 86, 88, 93, 94, 96, 101, 102, 104 and 107-109 do not teach or define any new limitations above claims 77, 78, 80 and 106 and therefore are rejected for similar reasons.

Response to Arguments

18. Applicant's arguments filed 27 March 2007 have been fully considered, but they are not persuasive for the reasons set forth below.

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at M-Th 7:15 - 5pm, 2nd Fridays 7:15-3:45, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Baturay
June 11, 2007


SALEH NAJJAR
SUPERVISORY PATENT EXAMINER